

1. Project Partners (*Known and Anticipated*)

Partnering Regional Universities:

- **Eastern Kentucky University:** Drs. Stephanie McSpirit (Sociology), Alice Jones (Geography, Environmental Research Institute), David Brown, Stephen Richter, Sherry Harrel, Guenter Schuster (Biological Sciences)
- **Murray State University:** Drs. Howard Whiteman, David White (Watershed Studies Institute)
- **Morehead State University:** Dr. David Eisenhour (Biological Sciences)
- **Western Kentucky University:** Dr. Andy Ernest (Water Resource Center)
- **Northern Kentucky University:** (Center for Applied Ecology)

Partnering Research Universities:

- **University of Kentucky:** Tracey Farmer Center; KWRRI; Dr. Andy Wigginton (Ecotoxicology and Environmental Assessment Laboratory -EEAL)
- **University of Louisville:** Dr. Art Parola (Stream Institute)

Partnering State Agencies:

Kentucky Division of Water
Kentucky Department of Fish and Wildlife Resources
Kentucky Department of Transportation
Kentucky Division of Mine Permits
Kentucky Abandoned Mine Lands
Kentucky Nature Preserves Commission
Commonwealth Office of Technology

Partnering Federal Agencies

U.S. Environmental Protection Agency
U.S. Fish and Wildlife Services
U.S. Forest Service
U.S. Department of Agriculture

Partnering Regional Organizations

Area Development Districts
Sanitation Districts
Regional Public Works Departments

Partnering NGOs

Kentucky Land Trust; Kentucky Water Ways Alliance
The Nature Conservancy; Ducks Unlimited
Kentucky Watershed Watch

2. Project Background and Purpose:

Justification for Project

Over the past year, EKU has had the opportunity of collecting stakeholder input as well as input from the scientific and regulatory communities on our state's efforts at stream and wetlands conservation and restoration. While this subcontract with the Kentucky Division of Water has been based at EKU, it has certainly not been a single effort of a single institution. To assist us in collecting stakeholder and scientific information, early on, we assembled a Steering Committee comprised of university faculty, federal and state employees and regional and local officials from across the state. Over the past several months, this statewide steering committee has expanded into a 43 member advisory committee. Since February, 33 of those 43 members have met with us in structured advisory sessions and have discussed with us the challenges and opportunities facing stream and wetland protection within the Commonwealth. In addition to these advisory sessions, we have conducted over 40 structured telephone interviews with stakeholders statewide and have also distributed an online survey to key stakeholder groups (other state and federal agency officials, flood plain managers, water utilities, environmentalists, private engineers, farmers etc). **Consistently, we have heard that Kentucky could do far better in protecting, conserving and restoring our water resources. As one private engineer involved in stream reclamation work said, "[Kentucky] is probably at a C level for a classroom grade."**

3. Project Description, Project Goals

Continued loss and degradation of Kentucky's streams and wetlands has been a consistent theme in the scientific, stakeholder and advisory data that we have collected. However, this marks not only a serious challenge but also a significant opportunity for Kentucky. Many of our Steering Committee members stressed the need to expand and develop Kentucky's research and educational capacity so as to address the major environmental challenges facing the protection and conservation of our state's water resources.

The subsequent goal of this project will be to do just that: To build the state's research and educational infrastructure on streams and wetlands protection and conservation. We propose to build the State's environmental capacity and ethic by strengthening the linkages between our universities, our state and federal agencies, other stakeholder groups and the general public.

The goal of this project will be to build a statewide water consortium to coordinate the water research, education and outreach efforts of our current university water research programs and coordinate those programs with the research, outreach and professional development needs of our state and federal agencies.

3. Project Description, Continued: Implementation Strategies

Building the State's research and educational capacity, will require a special office on streams and wetlands protection. The main job of this office will be to literally "build bridges," –as increasing the state's capacity to protect its vital water resources is truly a infrastructure issue deserving of consideration for monies under the Commonwealth's stimulus package plan. This streams and wetlands office will be involved in coordinating and facilitating the sharing of resources between universities, state and federal agencies, local governments and the general public through the following strategies:

a. Scholarship and Training Program for University Students: One theme that was discussed in our advisory sessions was the need to expand our state's scientific and technical capacity. Many state officials lamented the lack of qualified technicians and job applicants for many of the highly technical positions needed for monitoring and assessing our streams and wetlands. The Office of Streams and Wetlands (OSW) will encourage and promote, through a generous scholarship and internship program, university students to consider jobs in the regulatory and watershed fields. Students involved in this scholarship/ internship program will be required to study at other water research centers and with other university research faculty from across the state. This "university water corps" will also be involved during the semesters and summers in delineating and classifying our state's remaining wetland resources. This was a major concern identified under our current KDOW subcontract, several steering committee members expressed concern with identifying (and protecting) our state's isolated wetland areas.

b. Training and Scholarship Program for Technical School Students: There is a unique opportunity for training and retraining Kentucky's workforce in the sciences and application of streams and wetland restoration, geographic systems, remote sensing technologies and in other green infrastructure / watershed protection measures. The Office of Streams and Wetlands, in coordination with Commonwealth Office of Technology, and various other universities and technical schools will promote the training and retraining of some of Kentucky's workforce to tackle the Commonwealth's watershed issues.

c. Building the State's Current Water Protection Infrastructure: Several Steering Committee members mentioned the pressing need for more professional development and training opportunities for state agency professionals. The Office of Streams and Wetlands will provide a funding stream for continued professional development and training. We will also work with university partners to develop advanced classes and courses needed by state and federal workers to stay on top of the latest innovations in science and watershed research. Universities will also be involved in facilitating outreach and education to stormwater managers in emerging green technologies to offset storm water impacts and combined sewer overflows into our streams and creeks.

d. Building the State's Civic Capacity on Streams and Wetland Issues: Finally, the Streams and Wetlands Office will facilitate the development of a statewide council on streams and wetlands. A number of states have developed such types of councils. These councils are an effort to conduct a statewide conversation on streams and wetlands conservation and to promote a statewide watershed ethic and appreciation. In our survey of key stakeholder groups from across Kentucky, when asked whether they would be interested in more information on the development of a statewide network of interested citizens, most (511 out of 723 respondents) reported that they would be interested in being part of such developments here in Kentucky. In fact, in the next question, 474 of those same respondents have already provided us with their email for "more information on the possible future development of a statewide network or forum on stream and wetland issues."

4. Project Team: (Project Manager(s), Content Experts, Instructional Designers, etc.):

The project manager for this project will be Dr. Stephanie McSpirit at Eastern Kentucky University who will oversee the Stream and Wetland Office. Yet, in writing a full stimulus proposal, the project team will include university persons from our current Steering Committee who are listed at the top of this conceptual proposal. In addition, persons from each of the above state and federal agencies, who are also part of our current Steering Committee, will be enlisted in developing the full stimulus proposal and project budget. Naturally, all of these persons will be involved in the Project's implementation.

5. Project Budget: Amount of Economic Stimulus Funds Requested:

<u>Office of Streams and Wetlands (OSW):</u> Project Manager/ Field Person/ Staff Person and Operating Budget @ \$350,000 per year @ 3 years	\$1,050,000
<u>Capacity Development:</u> Each partnering university will be able to apply for approximately \$150,000 per year through OSW in developing research, training, scholarship and professional development opportunities. Universities will also be able to advocate and apply for monies to promote watershed based planning and implementation projects in their service region. @ \$200,000 per year @ 7 universities @ 3 years=\$4,200,000 and Commonwealth Office of Technology @ \$1,000,000	\$5,200,000
<u>Estimated Project Total</u>	\$6,250,000